

Guaranteed learning in Model Predictive Control

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Abstract: In this paper, we propose a novel learning-based model predictive control framework for nonlinear systems able to guarantee closed-loop learning. The employed cost function is formed by a combination of a primary and a learning cost. The proposed approach is easy to implement and differs from standard MPC schemes only by an additional constraint.

Keywords: Learning-based MPC, Dual-Adaptive MPC, Robust MPC.

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